

**BACKGROUND SUPPRESSION METHOD FOR TIME-RESOLVED  
MAGNETIC RESONANCE ANGIOGRAPHY****ABSTRACT**

A 3D projection reconstruction pulse sequence is employed during a CEMRA dynamic study to acquire a time course series of k-space data sets. Signals from non-vascular voxels are suppressed by reconstructing a corresponding series of low resolution images using the centers of the acquired k-space data sets, and measuring the degree to which the signal behavior of voxels therein differ from a model of unwanted signal. Signals from voxels which do not differ from the model are suppressed and the resulting filtered low resolution images are transformed back to k-space and combined with the originally acquired peripheral k-space data to form complete, filtered k-space data sets from which images may be reconstructed.